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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/604,135 | 06/27/2003 | Reinhard Lihl | LVIP106US | 1134 |

24041 7590 09/27/2005
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| EXAMINER |
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BLAKE, CAROLYN T

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| ART UNIT | PAPER NUMBER |
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3724

DATE MAILED: 09/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/604,135

Applicant(s)

LIHL ET AL.

Examiner

Carolyn T. Blake

Art Unit

3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 5-9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 10 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Please note the Pre Appeal Brief Review action, dated September 14, 2005, in which it was determined to reopen prosecution in view of the issues raised below.

Drawings

2. Figure 1 should be designated by a legend such as --Prior Art-- because it appears only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to under 37 CFR 1.71 for failing to enable any person skilled in the art to make and use the invention. In particular, it is not clear how each of the illumination systems can be provided at the same time.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-4, 10, and 11 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter

Art Unit: 3724

which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. It does not appear Applicant had possession of the claimed invention with respect to having three illumination systems at the same time in the same microtome, as well as how to make each function over the other.

6. Claims 1-4, 10, and 11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. One of ordinary skill in the art is not enabled by the disclosure how to make a microtome with three illumination systems or how to use a microtome with respect to the functioning of one light source over another.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-4, 10, and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear how each of the illumination systems can be provided at the same time.

9. Claim 3 recites the limitation "the gap" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

10. Claims 1, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over German Patent DE 32 24 375 to Bilek in view of German Patent DE 36 15 713 to Wolf and US Patent Application 2003/0024368 A1 to Fukuoka.

To the degree understood, Bilek discloses a microtome (FIGS 1-3) having a knife (3), a specimen arm (1) movable relative to the knife (3), and at least one light source (6) acting as a base-mounted illumination system. Bilek fails to disclose the light source is a light-emitting diode. Wolf discloses a microtome (FIGS 1 and 2) having a specimen arm (18) and an illumination system with a light source in which the light source is a light-emitting diode (89). Furthermore, Fukuoka discloses an illumination system for a cutting device in which incandescent lamps, fluorescent lamps, or light-emitting diodes can be interchanged. Fukuoka states it is preferable to use LEDs because they generate relatively no heat in comparison to the incandescent lamps or fluorescent lamps (paragraph 55). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a light-emitting diode, as disclosed by Wolf, on the Bilek device in order to reduce heat generation, as disclosed by Fukuoka.

11. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bilek in view of Wolf and Fukuoka as applied to claim 1 above, and further in view of Shankle et al (6,195,016 B1).

Regarding claim 2, the Bilek-Wolf-Fukuoka combination discloses the base-mounted illumination system encompasses at least one light-emitting diode, but fails to

Art Unit: 3724

disclose a frosted glass disk mounted in front of the light-emitting diode. Shankle et al disclose the use of a frosted glass disk in combination with LEDs for the purpose of providing uniform white illumination light (col. 7, lines 1-7). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a frosted glass disk, as disclosed by Shankle et al, on the Bilek in view of Wolf and Fukuoka device for the purpose of providing uniform white illumination light.

Regarding claim 3, Bilek discloses the light source (6) is mounted on the microtome in such a way that a light beam (8) proceeding from the base-mounted illumination system is reflected by a backside (15) of the knife (3) and at the preparation so as thereby to achieve uniform illumination of the gap between the knife (3) and preparation. See FIG 3.

12. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bilek in view of Wolf, Fukuoka, and Shankle et al as applied to claims 2 and 3 above, and further in view of Douglas-Hamilton et al (4,896,967).

Bilek discloses the light source (6) coincides with an optical axis (5) of an observation microscope (4). However, the Bilek-Wolf-Fukuoka combination fails to disclose the base-mounted illumination system has a first and second light-emitting diode that are inclined with respect to one another at an angle. Douglas-Hamilton et al disclose a base-mounted illumination system (FIG 8) with a first and second light-emitting diode (134) that are inclined with respect to one another at an angle (142). This configuration enhances the uniformity of illumination while preventing direct radiation from entering the observation microscope (col. 7, lines 19-26). Therefore, it

Art Unit: 3724

would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a first and second light-emitting diode that are inclined with respect to one another at an angle, as disclosed by Douglas-Hamilton et al, on the Bilek in view of Wolf, Fukuoka, and Shankle et al device for the purpose of providing uniform illumination while reducing direct radiation.

Response to Arguments

13. It should be noted the Examiner is interpreting the claims to be claiming three illumination systems in the alternative. After the Pre Appeal Conference, it was determined the claim language is not clear and new rejections under 35 USC § 112 have been made. The art rejection remains the same in terms of the original interpretation presented. In addition, prior art having three illumination systems on a microtome has not been found or made of record.

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carolyn T. Blake whose telephone number is (571) 272-4503. The examiner can normally be reached on Monday to Friday, 8:00 AM to 5:30 PM, alternating Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan N. Shoap can be reached on (571) 272-4514. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


CB

September 22, 2005


Allan N. Shoap
Supervisory Patent Examiner
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